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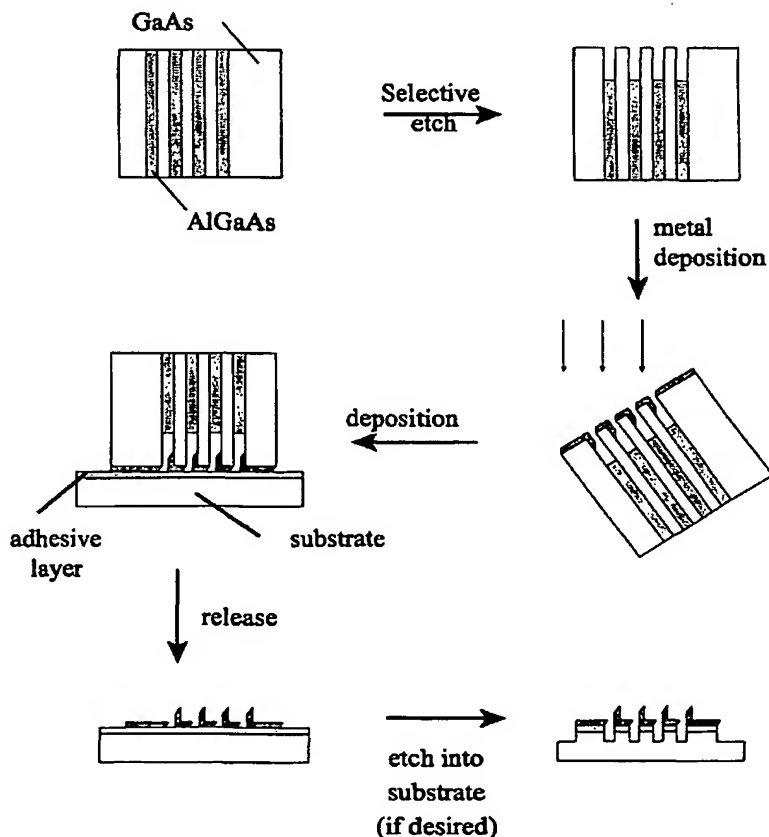
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(54) Title: SUPERLATTICE NANOPATTERNING OF WIRES AND COMPLEX PATTERNS



(57) Abstract: Fabrication of metallic or non-metallic wires with nanometer widths and nanometer separation distances without the use of lithography. Wires are created in a two-step process involving forming the wires at the desired dimensions and transferring them to a planar substrate. The dimensions and separation of the wires are determined by the thicknesses of alternating layers of different materials that are in the form of a superlattice. Wires are created by evaporating the desired material onto the superlattice that has been selectively etched to provide height contrast between layers. The wires thus formed upon one set of superlattice layers are then transferred to a substrate.

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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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U.S. : 249/83, 119, 129; 264/294, 299, 330; 156/242; 428/221, 336, 343, 355R; 257/40, 798

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,294,450 B1 (CHEN et al) 25 September 2001 (25.09.2001), figure 8.	14-17, 32-37
A		1-13, 18-31
A, P	US 2003/0008505 A1 (CHEN et al) 09 January 2003 (09.01.2003).	1-37
A,E	US 2003/0219992 A1 (SCHAPER) 27 November 2003 (27.11.2003).	1-37
A, P	US 6,465,132 B1 (JIN) 15 October 2002 (15.10.2002).	1-37

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